

# ANACAPA ISLAND RESTORATION PROJECT

## DRAFT ENVIRONMENTAL IMPACT STATEMENT



*National Park Service*

*Channel Islands National Park*

*Ventura County, California*

June, 2000

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### *Ventura County, California*

**June, 2000**

#### **Responsible Official**

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#### **Lead Agency:**

USDI National Park Service

#### **For Further Information**

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### **Abstract**

This Draft Environmental Impact Statement (DEIS) was prepared in accordance with the Department of the Interior National Environmental Policy Act (NEPA) regulations, and the National Park Service NEPA guidelines (NPS-12). As required by NEPA, this DEIS is necessary because actions proposed as part of this DEIS are considered a major federal action significantly affecting the quality of the human environment.

Channel Islands National Park in coordination with the Island Conservation and Ecology Group formulated the proposed action to react to the ecological degradation that is occurring on Anacapa Island as a result of the presence of the non-native Black Rat. The purpose of the proposed action is to eradicate rats from Anacapa Island and keep it and Santa Barbara Island, Prince Island and Sutil Island rat-free. Maintaining rat-free islands would improve seabird-nesting habitat and could aid in the recovery of some species such as the Xantus' Murrelet and Ashy Storm Petrel.

The proposed action involves the aerial application of the rodenticide brodifacoum into all rat territories on Anacapa Island. Application of the rodenticide would occur during the fall of the year to minimize disturbance and exposure to other affected resources on the island. The Park conducted extensive "scoping" on the proposed action. As a result of comments from interested public, federal and state agencies, and conservation groups on the proposed action, the Park identified three significant environmental issues. The significant environmental issues are: 1) Efficacy of Target Species; 2) Impacts on Non-Target species; and 3) Impacts to the public and visitor use.

To address the significant environmental issues, the Park prepared five alternatives to the proposed action. Each alternative was developed to respond to the environmental issues identified. The Park also considered many other alternatives and methods to eradicate the Black rat on Anacapa Island, however, many of the methods failed to meet the purpose and need of the project.

As part of this DEIS the park described the "Affected" environment for the project. This section envelopes what is currently known and the trend of affected island resources. The affected environment included the physical setting of the island, terrestrial resources, and marine resources.

For full disclosure, the Park prepared an analysis of the environmental consequences that would occur should any of the alternatives presented be chosen for implementation.

Constructive feedback is extremely important, and all interested individuals, agencies and organizations are encouraged to comment. Responses must be in writing and should be addressed to: Channel Islands National Park; Attn: Superintendent; 1901 Spinnaker Dr., Ventura, CA 93001. All comments must be postmarked no later than 60 days from the date of EPA's notice of filing in the Federal Register (anticipated to be 6/30/00).

The Regional Director, Pacific West Region, is responsible for the final decision. The Superintendent, Channel Islands National Park, is responsible for plan implementation and monitoring of all activities.

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## SUMMARY OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

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### *Introduction*

This Draft Environmental Impact Statement analyzes the effects of implementing proposed actions that accomplish the following objectives: 1) eradication of the introduced Black rat on Anacapa Island; 2) adopt an emergency response plan for accidental introductions of rodents on Anacapa, Santa Barbara, Prince, and Sutil Islands; and 3) incorporate a prevention strategy to reduce the potential for rodents to be accidentally introduced to Park islands. The proposed action was developed in concert with the Island Conservation and Ecology Group and is based on other successful island rat eradication efforts worldwide. Actions to manage existing and potential Black rat infestations is necessary because of the ecological impacts that it is having on Anacapa Island, and the potential negative impact they would have if introduced to other Park islands.

### *Public Involvement*

In compliance with the National Park Service National Environmental Policy Act (NEPA) implementing regulations, the park conducted “scoping” on the proposed action. Scoping involved contacting interested publics, regulatory agencies with oversight concerns, conservation groups, and worldwide experts in the field of vertebrate pest ecology. The Park used several methods to solicit comment on the proposed action

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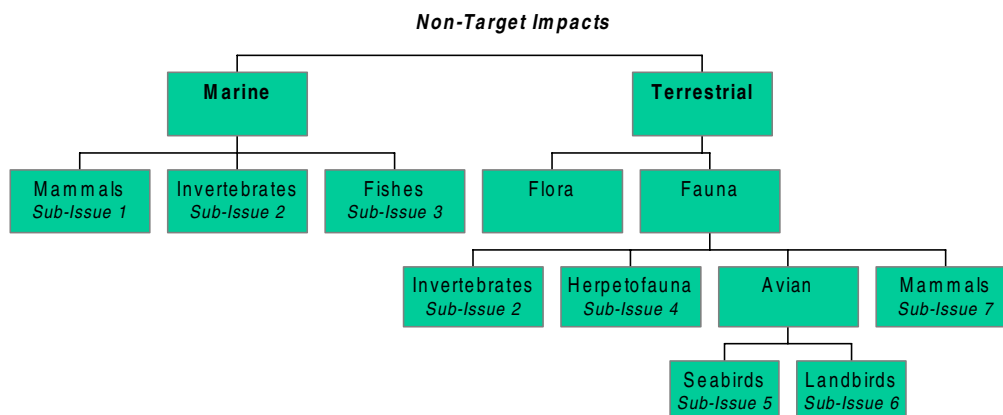
including letters, public meetings, web-site, press releases, and press, radio and television advertisements.

### *Environmental Issues*

Based on internal and external comments on the proposed action the Park concluded that the analysis would need to address three significant environmental issues. These issues are: 1) Efficacy on Target species; 2) Impacts to Non-target species; and 3) Effect on public use and visitation.

Issue	Description
<b>Target Species Efficacy</b>	Efficacy for this analysis is defined as how well the alternative would meet the 100% eradication objective.
<b>Non-Target Species:</b>	Impacts to non-target species are separated into two categories: physical disturbance and toxicological risk. Physical disturbance may occur from the activities associated from baiting, and monitoring. Toxicological risk will analyze both primary (direct) exposure and secondary (indirect) exposure.
<b>Public Use/ Visitation</b>	Anacapa Island is the most visited of all the islands in the Park. Although camping is allowed on east islet, day trips via the concessionaire boats is the most common visitation that occurs on the island.

The issue “Impacts to Non-target species” is a broad category that incorporates several sub-issues. The sub-issues are the species groups that may be impacted by the proposed action. The following taxonomic hierarchy identified the species groups that may be impacted by the project:



### *Alternatives*

After identifying the significant environmental issues associated with the proposed action, the Park began developing alternatives to the proposed action. Modifying the eradication strategies to address the environmental issue concerns was the basis the Park used to develop alternatives. In all, six alternatives were developed, including the “No Action” alternative.

#### Summary of Alternatives.

Alternative	East Anacapa		Middle Anacapa		West Anacapa		Active Ingredient	Concentration (ppm)
	Top	Cliff	Top	Cliff	Top	Cliff		
1 (No Action)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2 (Preferred)	Aerial	Aerial	Aerial	Aerial	Aerial	Aerial	Brodifacoum	25
3	Bait Stn	Aerial	Bait Stn	Aerial	Aerial	Aerial	Brodifacoum	25
4	Aerial	Aerial	Aerial	Aerial	Aerial	Aerial	Bromadiolone	50
5	Bait Stn	Aerial	Bait Stn	Aerial	Aerial	Aerial	Bromadiolone	50
6	Aerial	Aerial	Aerial	Aerial	Aerial	Aerial	Diphacinone and Brodifacoum	50 and 25

Several methods and techniques were rejected from consideration. Exclusive use of bait stations (elevated and ground) was rejected because of the steep cliffsides on Anacapa Island and the problems associated with placing bait stations in all of the rat territories on the island, including the steep cliffsides. Studies cited in the analysis documented that not all rats could access the elevated bait stations. Several alternate rodenticides were also considered, but were rejected because they: 1) had not been used in successful island eradication; 2) had potential to develop bait shyness; 3) could not

cope with the potential “Warfarin resistant” rats; and 4) lack of antidotes for some of the rodenticides. Trapping and introducing predators were also rejected because they failed to meet the purpose and need.

### *Environmental Consequences*

For each environmental issue, the Park analyzed the potential effects that may occur should one of the six alternatives be implemented. For Issue 1 (Efficacy), analysis focused on the probability of a successful eradication for each alternative. Factors considered in the analysis included the toxicology of the rodenticide, bait composition and delivery into the ecosystem, and local factors. From an efficacy standpoint, Alternative Two (proposed/preferred action) offers the highest probability of success in eradicating rats from the island.

For Issue 2 (Non-Target Impacts), each alternative was analyzed for potential physical disturbance of the proposed activities, as well as the toxicological effects of the proposed rodenticide. The physical impacts were restricted to short-term disturbance to landbird, seabird, and marine mammal species.

Toxicological impacts were analyzed for a wide range of species that may be present in the project area. The effects analysis included both primary exposure (direct consumption of the bait containing the rodenticide), and secondary exposure (species who feed on animals that have been directly exposed) impacts. Mitigation measures were incorporated for species at risk of exposure. The presence of the endemic deer mouse on Anacapa Island presented a logistical challenge. Actions to protect the endemic mouse from extinction are incorporated into each action alternative.

For Issue 3 (Public Use and Visitation), each alternative was analyzed for its potential to expose island visitors to rodenticides, and the potential impacts to visitor enjoyment and visitation. Rodenticide exposure to the public was considered to be a very low risk, however, was analyzed in detail to quantify the potential risk. Mitigation measures are

presented to minimize this risk further. In addition, the use of bait stations around public areas was built into all of the action alternatives. The 2-3 day restriction around the application period would prevent island visitation during the slowest part of the visitation year.

## Glossary of Terms and Abbreviations

AIRP	Anacapa Island Restoration Project
ATTC	American Trader Trustee Council
EC <sub>50</sub>	Effective Concentration. The concentration at which 50% of an exposed test population is effected sublethally.
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ESA	Endangered Species Act
ft	Foot. 1 ft = 30 centimeters or 12 inches
g	Gram. 1 g = 0.035 oz.
GMP	NPS General Management Plan
GPS	Geographic Positioning System
ha	Hectare. 1 ha = 2.47 acres
ICEG	Island Conservation and Ecology Group
kg	Kilogram. 1 kg = 2.205 pounds
LC <sub>50</sub>	LC - Lethal Concentration. Concentration of active ingredient that could cause death in 50% of an animal test population. Presented as mg active ingredient per unit volume .

LD <sub>50</sub>	LD – Lethal Dose. Acute oral dose required to cause death in 50% of an animal test population. Presented as mg active ingredient per kg body weight (mg/kg).
LOC	Level of Concern. See text.
mg	Milligram. 1/1000 of a gram.
NEPA	National Environmental Policy Act
NPS	National Park Service
ppm	Parts per million
PT	Prothrombin time. A measure of blood clotting time.
RMP	NPS - Resources management plan
RQ	Risk Quotient = Exposure/Toxicity. See text.
USFWS	US Fish and Wildlife Service

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